

Remarks

No amendments are made herein. Upon entry of this Response, claims 1-28 are pending. No new material is presented that would necessitate an additional search on the part of the Examiner.

Claims are novel

The Office action on pp. 2-4 ¶3 rejects claims 1-4, 6-15, 7-24, and 27-28 under 35 U.S.C. §102(b) in view of Seliger et al. (U.S. patent number 5,546,580, issued August 13, 1996). Applicants respectfully traverse.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Manual of Patent Examining Procedure* § 2131 (8th ed., Rev. 4, Oct. 2005), citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q. 2d 1051, 1053 (Fed. Cir. 1987). Thus, the standard for rejection under 35 U.S.C. § 102 is identity.

Applicant's factual analysis below shows that Seliger et al. is not the same as the subject matter of the present claims.

Seliger et al. (U.S. patent number 5,546,580, issued August 13, 1996)

Seliger shows a method for coordinating updates to a medical database that accounts for concurrent charting of a data value from different workstations (Seliger et al., Abstract). Previous Office actions admit that "...Seliger et al. is more directed to updating records such as patient's flowsheets using sequence numbers and event information." See Office action mailed January 18, 2006 p. 8 ¶17 and Office action mailed September 27, 2006 p. 7 ¶9.

The method in Seliger shows: entering a new data value for a record in a medical database at a first workstation; entering a new data value for the same record in a medical database at a second workstation; storing the first and second data value in the record in the medical database; and recording a correction history for that record (Ibid. column 3 lines 6-22).

Each database event in Seliger contains a sequence number and event information for updating the record (Ibid. column 11 lines 56-62). The sequence number represents the order in which the event information was received by the database server (Ibid. column 11 lines 62-65). The database synchronizes the locally generated change along with other changes to the record,

which permits concurrent entries to be processed in the order in which they are received by the database server (Ibid. column 12 lines 1-5).

Seliger shows that processing of each database event involves updating the appropriate parameter values in the record and determining if the update requires the display screen to be updated (Ibid. column 12 lines 7-10). Processing of the database events also involves recording a correction history for each parameter that is changed (Ibid. column 12 lines 15-17). The new parameter value is added to the correction history, and the new value becomes the current value in the record (Ibid. column 12 lines 17-19). Seliger shows that by adhering to the sequence numbers of the database events, the final parameter value reflects the current value and in the case of concurrent charting, database events are processed in the order received by the database server (Ibid. column 12 lines 24-31).

In contrast, the present claims are directed to a computer-implemented method for merging studies. In the specification as filed, the term "study" refers to the collected information for an examination, and most closely relates to an overall combination of "Performed Procedure Steps", according to the DICOM standard, with each DICOM Performed Procedure Step including the collected information. Specification as filed paragraph [0002]. The specification as filed further provides that the term "procedure" refers to a similar combination of collected information, as in the DICOM Performed Procedure Step, with a study having potentially multiple procedures. Specification as filed paragraph [0002].

In contrast, factual analysis above shows that Seliger merely shows a method for coordinating simultaneous updates of a data value within a single medical record. A single data value within a medical record is not the same as a study, which has collected information, which is the subject matter of claims 1, 9, 12, and 22. Seliger's method merely updates a data value within a single medical record.

Nowhere does Seliger show a computer-implemented study merging method or computer program product in a computer readable medium involving merging a patient's first medical study with a logically related or similar second medical study, to create a composite study, which is the subject matter of claims 1, 9, 12, and 22.

Nowhere does Seliger show merging a first medical study with a logically related second medical study, to create a composite study, which is the subject matter of claims 1, 9, 12, and 22.

The Office action on p. 7 alleges that Seliger shows "... automatically updating a flowsheet by an instrument or two instruments updating the same patient flowsheet at the same time because the Examiner considers that updating the same patient flowsheet means that the first and second studies (or values) are merged (added together) according to a protocol attribute since they are related (or similar) parameters." Applicants respectfully disagree.

Seliger fails to show any merging, let alone merging of a first study and second study. In contrast to merging, Seliger shows updating or replacing on column 6 line 60 to column 7 line 8 [emphases added]:

It may appear that concurrent updating of the same parameter in a patient flowsheet would be undesirable from a system operation viewpoint. However, this is not the case when concurrent updating is used with the correction history. In the medical information context, neither new entry has priority. For example, if one user enters a heart rate of 80 for a given patient and another user concurrently enters a heart rate of 90 for the same patient, the entries are clearly different. However, the system is not expected to determine which data entry is correct or to assign either data entry a priority. In effect, the system doesn't care which data entry is received first. All that is required is to record the data entries in the order in which they were received and to reflect all updates in the correction history. There is no requirement to abort either transaction or to inform one of the users that a conflict has occurred.

The above section shows that Seliger's method merely records data entries based on chronological order. The correction history lists all entries for a specific data value and the medical record shows only the most recently entered value. In Seliger's method, the data values are independent events, i.e., the earlier entered value does not effect or alter the later entered value. In fact, with Seliger's method, the later entered data value simply replaces the earlier value in the record. Thus, a data value, rather than being merged, is replaced.

Therefore, Seliger fails to show reconciling study identifiers of the first and second medical studies, in which the merging includes an automatic adding of medical information, according to a protocol attribute, of the first or second medical study into the other medical study in the creating of the composite study, which is the subject matter of claims 1, 9, 12, and 22.

Further, Seliger fails to show assigning a unique study identifier to the merged study, which is the subject matter of claims 9 and 22. In Seliger's method, the user ID associated with the data value does not change and there is no merged study. In Seliger's method there is only one medical record that maintains this same ID, and the user ID given to a data value remains associated with that data value.

For these reasons, Seliger is not the same as the subject matter of claims 1, 9, 12, and 22, and therefore these claims are not anticipated by Seliger. Claims 2-4, 6-8, 10-11, 13-15, 17-21, 23-24, and 27-28 depend directly or indirectly for claim 1, 9, 12, or 22 and incorporate the subject matter of these claims and contain additional subject matter. As claims 1, 9, 12, and 22 are not anticipated by Seliger, therefore claims 2-4, 6-8, 10-11, 13-15, 17-21, 23-24, and 27-28 also are not anticipated by this reference.

Applicants respectfully assert that claims 1-4, 6-15, 7-24, and 27-28 are novel in view of Seliger, and request that rejection of these claims under 35 U.S.C. §102(b) be withdrawn.

Claims are not obvious

The Office action rejects claims 5, 16, 25, and 26 under 35 U.S.C. §103(a) in view of the combination of Seliger et al. (U.S. patent number 5,546,580, issued August 13, 1996) and Applicants admitted prior art, paragraph [0002] of the specification as filed, hereinafter called "paragraph [0002]". Applicants respectfully traverse.

According to a summary of criteria in the *Manual of Patent Examining Procedure*, "[t]o establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure." [emphasis added] *Manual of Patent Examining Procedure* §2142 (8th Ed. Rev.2, May 2, 2004); *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Applicants respectfully traverse the above rejection, and show that the facts of the case and the relevant case law indicate that the invention would not have been obvious to one of ordinary skill in the art at the time the application was filed because the underlying facts show that the criteria for a *prima facie* rejection have not been met.

Seliger et al. (U.S. patent number 5,546,580, issued August 13, 1996)

Seliger is characterized above.

Nowhere does Seliger teach or suggest a computer-implemented study merging method or computer program product in a computer readable medium involving merging a patient's first medical study with a logically related or similar second medical study, to create a composite study, which is the subject matter of claims 1 and 12.

Seliger fails to teach or suggest reconciling study identifiers of the first and second medical studies, in which the merging includes an automatic adding of medical information, according to a protocol attribute, of the first or second medical study into the other medical study in the creating of the composite study, which is the subject matter of claims 1 and 12.

Seliger fails to teach or suggest a computer-implemented medical study merging method, involving: identifying, in accordance with a lexicon of Digital Imaging and Communication in Medicine (DICOM), a patient's related first and second medical studies to be merged, which is the subject matter of claim 25.

Seliger fails to teach or suggest merging the first medical study with the second medical study, according to a protocol attribute, such that a resultant composite study has a study identifier different from at least one of the first and second medical studies, in which, the merging includes an automatic adding of a series of the second medical study to the composite study, the series of the second medical study having a series identifier the same as a pre-merge corresponding series identifier, with the series of the second medical study including at least an artifact with an artifact identifier the same as a pre-merge corresponding artifact identifier, such that the composite study includes series and corresponding series identifiers from both the pre-merged first and second medical studies, which is the subject matter of claim 25.

For any of these reasons, Seliger alone does not render claims 1, 12 and 25 obvious. Claims 5, 16, and 26 depend directly or indirectly on claims 1, 12 or 25, respectively, and incorporate all of the subject matter of these claims and contain additional subject matter. Therefore these claims also are not obvious in view Seliger alone.

Applicants now show below that paragraph [0002], alone or in combination, does not cure the defects of Seliger.

Paragraph [0002]

Paragraph [0002] shows that patients undergo medical examinations and when such an examination is being performed, a user generates a medical study which contains examination

results. This paragraph shows that the prevailing format for these studies is a DICOM (Digital Imaging and Communication in Medicine) standard.

Nowhere does paragraph [0002] teach or suggest a computer-implemented study merging method or computer program product in a computer readable medium involving merging a patient's first medical study with a logically related or similar second medical study, to create a composite study, which is the subject matter of claims 1 and 12.

Paragraph [0002] fails to teach or suggest reconciling study identifiers of the first and second medical studies, in which the merging includes an automatic adding of medical information, according to a protocol attribute, of the first or second medical study into the other medical study in the creating of the composite study, which is the subject matter of claims 1 and 12.

Paragraph [0002] fails to teach or suggest merging the first medical study with the second medical study, according to a protocol attribute, such that a resultant composite study has a study identifier different from at least one of the first and second medical studies, in which, the merging includes an automatic adding of a series of the second medical study to the composite study, the series of the second medical study having a series identifier the same as a pre-merge corresponding series identifier, with the series of the second medical study including at least an artifact with an artifact identifier the same as a pre-merge corresponding artifact identifier, such that the composite study includes series and corresponding series identifiers from both the pre-merged first and second medical studies, which is the subject matter of claim 25.

Paragraph [0002] fails to cure the defects of Seliger with respect to claims 1, 12, and 25, therefore a *prima facie* case of obviousness based on the combination of these references has not been made, and claims 1, 12 and 25 are not obvious in view of Seliger and Paragraph [0002], alone or in combination.

Claims 5, 16 and 26 depend directly or indirectly on claims 5, 16 or 26 respectively, and incorporate all of the subject matter of these claims and contain additional subject matter. Therefore these claims also are not obvious in view of Seliger and Paragraph [0002], alone or in combination.

Summary

On the basis of the foregoing reasons, Applicants respectfully submit that the pending claims are in condition for allowance, which is respectfully requested.

If there are any questions regarding these remarks, the Examiners are invited and encouraged to contact Applicants' representative at the telephone number provided.

Respectfully submitted,



Sonia K. Guterman, Reg. No. 44,729
Adam M. Schoen, Reg. No. 58,576
Attorneys for Applicants
Lawson & Weitzen, LLP
88 Black Falcon Ave., Suite 345
Boston, Massachusetts 02110-2481
Tel: (617) 439-4990
Fax: (617) 439-3987

Date: April 19, 2007